



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/668,665

09/23/2003

Jean-Claude Yvin

P08425US00/BAS

1061

881 7590 03/09/2010

STITES & HARBISON PLLC  
1199 NORTH FAIRFAX STREET  
SUITE 900  
ALEXANDRIA, VA 22314

EXAMINER

OLSON, ERIC

ART UNIT

PAPER NUMBER

1623

MAIL DATE

DELIVERY MODE

03/09/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

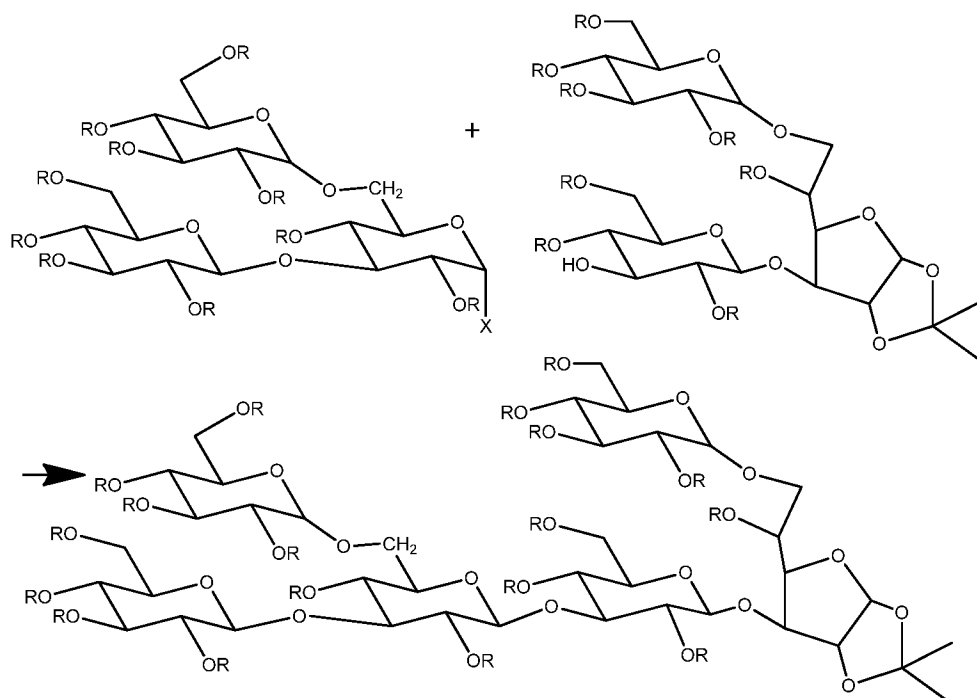
### **Detailed Action**

This action is in response to Applicant's request for reconsideration submitted February 25, 2010, After Final.

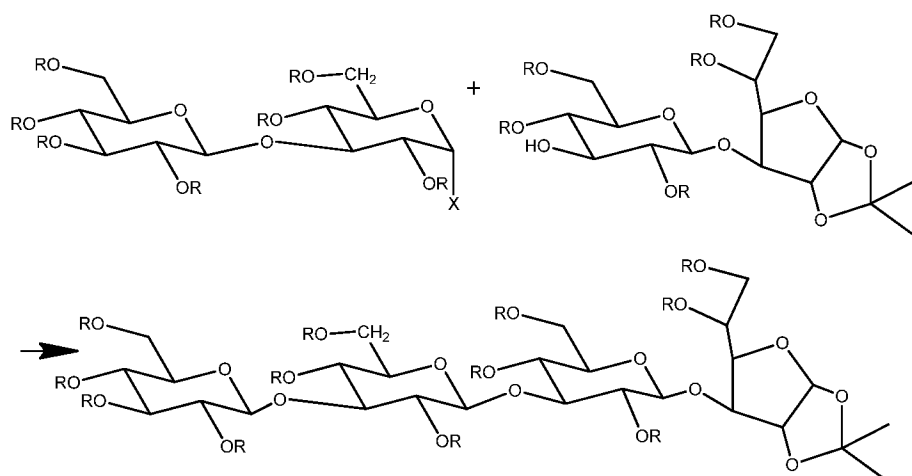
Applicant's arguments and request for reconsideration have been fully considered with respect to the rejection of instant claims 1, 5-7, and 10 under 35 USC 103(a) of record in the final office action submitted October 27, 2009, and have not been found to be persuasive to remove the rejection.

Firstly, Applicant argues that Kong et al. does not disclose how to make an unbranched polysaccharide and that furthermore making such an unbranched polysaccharide would be beyond the ordinary level of skill in the art. As mentioned in the previous office action, making an unbranched oligosaccharide would, at the very most, require merely a routine modification of the protocol for synthesizing a branched oligosaccharide as disclosed by Kong et al. For example, the following synthetic scheme from Kong et al. for making branched oligosaccharides is disclosed on p. 32 of the English translation of Kong et al.:

Art Unit: 1623

**Synthetic scheme from p. 32**

A modification of the synthetic scheme as disclosed below:

**Modified Tetrasaccharide Synthesis**

results in an unbranched tetrasaccharide. A similar modification of the synthetic scheme pictured on p. 36 results in an unbranched pentasaccharide. These

Art Unit: 1623

modifications are clearly within the ordinary level of skill in the art. Therefore Kong et al. enables one skilled in the art to make unbranched oligosaccharides.

Applicant further argues that even if one of ordinary skill in the art would be able to make the claimed saccharides, Kong et al. does not provide any data showing that these oligosaccharides possess antitumor activity. However, explicit working examples for all embodiments are not required in order for a document to render an invention obvious. Rather, all that is needed is a reasonable expectation of success for practicing the claimed invention based on Applicant's disclosure and the ordinary level of skill in the art. Absent evidence to the contrary, a clear teaching or suggestion in the reference that a method could be practiced is sufficient to render the invention obvious. In the instant case, the first paragraph on p. 6 of the English translation of Kong et al. clearly discloses oligosaccharides having antitumor activity. Structure [I] at the bottom of p. 6 and the first two paragraphs at the top of p. 7 clearly define the structure of these oligosaccharides as including unbranched oligosaccharides when  $m=0$ . Furthermore, claim 25 of Kong et al. clearly claims an **immunity-enhancing, anti-tumor, and cancer-curing** pharmaceutical composition comprising an oligosaccharide of this same formula [I] which includes either 0, (unbranched) or 1, 2, 3, or 4 (branched) side chains. The fact that  $m$  is defined as 0-4 rather than 1-4 is an unambiguous statement that Kong et al. considers unbranched oligosaccharides to be among the antitumor oligosaccharides of the disclosed invention.

For these reasons the rejection made in the final office action of October 27, 2009 is deemed proper and maintained.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC S. OLSON whose telephone number is (571)272-9051. The examiner can normally be reached on Monday-Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia Anna Jiang can be reached on (571)272-0627. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eric S Olson/  
Examiner, Art Unit 1623  
3/6/2010